

REMARKS/ARGUMENTS

The present Amendment After Final under 37 C.F.R. § 1.116 is responsive to the Final Office Action mailed July 25, 2002 in the above-identified application. Enclosed herewith is a Petition requesting a two-month extension of time for resetting the deadline for responding to the Office Action from October 25, 2002, to and including December 25, 2002.

In the Final Office Action, the Examiner rejected claims 45-49, 51-52 and 54-57 under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner asserts that the limitation in claim 45 of "before providing a compliant layer, plating a barrier metal atop the contacts of said semi-conductor chip" is not disclosed in the specification. Applicants respectfully assert that above-quoted recitation is actually recited in claim 42 and not claim 45. In response, Applicants have amended claim 42 to remove the "before providing a compliant layer" recitation therefrom. Applicants note that the original specification at page 12, lines 10-12, provides support for the limitations present in claim 42, stating that "one or more barrier metals may be plated atop the chip contacts 110 prior to the bond ribbon plating step to thereby ensure the compatibility of materials." In view of the above-noted Amendment and Remarks, Applicants respectfully assert that the rejection of claims 45-49, 51-52 and 54-57 under 35 U.S.C. § 112, first paragraph, be removed. Applicants also respectfully assert that claim 42 satisfies the requirements of 35 U.S.C. § 112, first paragraph, and is otherwise allowable.

The Examiner continues to reject claims 35-38, 40-41, 45-54 and 57 under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent 5,070,297 to Kwon, or in the alternative, under 35 U.S.C. § 103(a) as obvious over the combination of Kwon and

U.S. Patent 4,671,849 to *Chen*. Claim 35 is patentable over *Kwon* and *Chen* because the references neither disclose nor suggest "providing a compliant layer . . . wherein the sloping edges of said compliant layer have a first curved transition region near the top surface of said compliant layer and a second curved transition region near the bottom surface of said compliant layer." Clearly, *Kwon's* compliant layer 32 (FIG. 2) does not have curved transition regions near the top and bottom surfaces thereof, a limitation expressly recited in claim 35.

Claim 35 is also patentable over *Kwon* and *Chen* because the references neither disclose nor suggest "selectively electroplating elongated bond ribbons atop said dielectric protective layer and said compliant layer." The conductive metal layers 28, 30 deposited in *Kwon's* via openings do not form "elongated bond ribbons." Rather, *Kwon's* metalized vias have a "V" or conical-shaped cross section that tapers away from Applicants' claimed "elongated bond ribbons."

Claim 35 is also patentable because the references neither disclose nor suggest that the "elongated bond ribbons" have a first curved region overlying the first curved transition region of said compliant layer and a second curved region overlying the second curved transition region of said compliant layer." For all of these reasons, claim 35 is unanticipated by *Kwon* and is otherwise allowable. Claims 36-38 and 40-41 are also allowable, *inter alia*, by virtue of their dependence from claim 35, which is allowable for the reasons set forth above.

Claim 45 is patentable over *Kwon* and *Chen* because the cited references neither disclose nor suggest a method of making a compliant microelectronic package including providing a compliant layer, "wherein the sloping edges of said compliant layer have first curved transition regions near the top surface of said compliant layer and second curved transition regions near the bottom surface of said compliant layer." Claim 45 is also patentable because the cited references neither disclose nor suggest the step of "selectively forming elongated, flexible bond

ribbons over the top surface and the sloping edge surfaces of said compliant layer . . . , wherein said elongated, flexible bond ribbons extending along the sloping edges of said compliant layer have first curved regions overlying the first curved transition regions of said compliant layer and second curved regions overlying the second curved transition regions of said compliant layer." Claims 46-54 and 57 are also patentable, *inter alia*, by virtue of their dependence either directly or indirectly from claim 45, which is patentable for the reasons set forth above.

Claim 39 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon or the combination of Kwon and Chen, and further in combination with U.S. Patent 4,962,985 to LaGrange. Claim 39 is unobvious, *inter alia*, by virtue of its dependence from claim 35 and because LeGrange doesn't overcome the deficiencies in Kwon and Chen noted above.

Claim 42 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon or the combination of Kwon and Chen, and further in combination with U.S. Patent 5,310,699 to Chikawa. Claim 42 is unobvious, *inter alia*, by virtue of its dependence from claim 42 and because Chikawa does not overcome the deficiencies in Kwon and Chen noted above.

Claims 43-44 and 55-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon in combination with U.S. Patent 5,874,782 to Palagonia. Claims 43-44 and 55-56 are unobvious, *inter alia*, by virtue of their dependence from respective claims 35 and 45, and because Palagonia does not overcome the deficiencies in Kwon noted above.

The present Amendment After Final should be entered because it raises no new issues and places the application in better form for appeal.

Applicants have filed herewith a Notice of Appeal.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show

changes made."

As it is believed that all of the rejections set forth in the Final Office Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

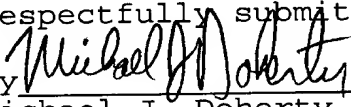
If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested Amendment After Final, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: December 3, 2002

Respectfully submitted,

By


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Version With Markings to Show Changes Made

42. (Twice Amended) The method according to Claim 35, further including ~~before providing the compliant layer,~~ plating a barrier metal atop the contacts of said semiconductor chip, wherein said barrier metal reduces voiding at an interface between the contacts and said bond ribbons.

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